BELGIAN MATHEMATICAL SOCIETY

Comité National de Mathématique CNM

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NCW Nationaal Comite voor Wiskunde

BMS-NCM NEWS: the Newsletter of the Belgian Mathematical Society and the National Committee for Mathematics

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BMS-NCM NEWS

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No 42, March 15, 2003

1 BMS membership dues for 2003 and for 2004

It was a tradition that the first issue of the Newsletter of a new calendar year was sent in paper form to all the members, including a preprinted form for a bank tranfer.

This year, this has not been done.

For 2004, we possibly return to the tradition. We will send the first issue of the Newsletter to ALL the members on paper, including a form for the bank transfer.

2 News from the BMS

During the last meeting of the Executive Committee of the BMS (February 15, 2003), the following items (among others) were discussed.

1. The BMS plans to organize a congress in 2005 together with the Dutch Mathematical Society, the Luxemburg Mathematical Society and the French Mathematical Society.
2. For 2003 the BMS and the NCM plan to jointly organize a study day on Mathematics and Genomics.
3. The next meeting of the Executive Committee is scheduled on May 17, 2003.

3 The BSS

Belgian Statistical Society

Société Belge de Statistique - Belgische Vereniging voor Statistiek

The Belgian Statistical Society (BSS) was founded in 1937. The scope of the Society is to contribute to scientific progress in statistics by promoting co-operation between Belgian statisticians and to help the general public to get better understanding of the place of statistics in the modern world. The Society has currently 3 honorary members and over 300 ordinary members coming either from universities or from the industrial sector.

The Society organizes scientific meetings every year and sponsors scientific events organized by some of its members. The BSS annual meetings always attract many participants. The B-Stat News, the BSS Newsletter published three times per year, covers any statistical matters such as information about universities or institutes, abstracts of recent PhD theses, news of members, announcements of forthcoming statistical events as well as short papers about teaching methods in statistics, official statistics,...

The Society has privileged links with the Adolphe Quetelet Society, which is the Belgian Region of the International Biometrics Society.

More about the BSS can be found on its web site at the address http://www.sbs-bvs.be or by contacting one of the following Board members:

- President: Noël Veraverbeke (Limburgs Universitair Centrum)
- Vice-President: Adelin Albert (University of Liège)
- Secretary: Gentiane Haesbroeck (University of Liège)
- Treasurer: Geert Molenberghs (Limburgs Universitair Centrum)

G. Haesbroeck

4 News from the BMS-NCM

Here follows a communication from A. BULTHEEL, President ouf the Belgian Mathematical Society and J.L. TEUGELS, President of the National Committee for Mathematics.

Aan wie het aanbelangt

Betreft : BACHELOR-MASTER STRUCTURE

Het Nationaal Comit voor Wiskunde, Belgisch vertegenwoordiger van de *International Mathematical Union* en aangesteld door de *Koninklijke Vlaamse Academie van Belgi voor Wetenschappen en Kunsten* en de *Acad mie Royale de Belgique* enerzijds, en de Belgian Mathematical Society anderzijds wensen samen hun standpunt bekend te maken in verband met de invoering van de BAMA-structuur in de nabije toekomst.

Gezien

(1) zich in het eerste jaar van de universitaire studies een grondige afstemming opdringt aan de nieuwe eindtermen voor het secundair onderwijs,

(2) de inpassing van de universitaire opleidingen in de wiskundige wetenschappen moet gebeuren in een internationale, Europese context,

(3) het huidige kwaliteitspeil van de totale opleiding op geen enkele manier mag worden afgezwakt,

verklaren het Nationaal Comit voor Wiskunde en de Belgian Mathematical Society zich uitdrukkelijk voorstander van een 3 + 2 structuur zoals deze reeds in circa 75% van de Europese landen is aangenomen. Hierbij moet tijdens het eerste jaar van de Bacheloropleiding een degelijke en geleidelijke overgang van secundair naar universitair onderwijs uitgebouwd worden. In het geheel van de Bacheloropleiding moet op een evenwichtige manier de nodige aandacht kunnen gaan naar eigen vakinhouden, naar toepassingsgebieden, naar noodzakelijke wetenschappelijke verbreding alsook naar aspecten van menswetenschappen.

Een tweejarige Masteropleiding is noodzakelijk om de geplande opleiding tenminste op het huidige wetenschappelijk niveau te behouden. Ook vragen het Nationaal Comit voor Wiskunde en de Belgian Mathematical Society met nadruk dat binnen deze tweejarige opleiding, naast uitgebreide aandacht voor het afstudeerwerk en internationale uitwisseling, de nodige ruimte zou voorzien worden voor hetzij een degelijke onderzoeksvoorbereiding, hetzij de nodige bedrijfsstages, hetzij de volledige lerarenopleiding.

Het stramien dat in deze 3 + 2 structuur wordt uitgetekend garandeert een duidelijk opleidingspatroon voor de student. Bovendien levert het een realiseerbare uitdaging voor de departementen wiskunde van de universiteiten.

Jef L. TEUGELS
National Committee for Mathematics
President
Universitair Centrum voor Statistiek
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3001 Heverlee

Adhemar BULTHEEL
Belgian Mathematical Society
President
Department Computerwetenschappen
Celestijnenlaan 200 A
3001 Heverlee

En ce qui concerne:

Concerne: BACHELOR-MASTER STRUCTURE

Le Comité national de mathématique-représentant belge de *l'International Mathematical Union* et désigné par la *Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten* et *l'Académie Royale de Belgique*-ainsi que la Société mathématique de Belgique souhaitent communiquer ensemble leur point de vue sur l'introduction de la structure BAMA.

Vu que

1. dans la première année d'études universitaires, s'impose un alignement sérieux aux nouveaux objectifs finaux de l'enseignement secondaire,

2. l'intégration des formations universitaires en sciences mathématiques doit se faire dans un contexte international,

3. l'actuel niveau de qualité de la formation globale doit etre maintenu,

le Comité national de mathématique et la Société mathématique de Belgique s'expriment, de manière explicite, en faveur d'une structure 3+2, telle qu'elle a été adoptéee dans environ 75% des pays européens. Une transition solide et progressive de l'enseignement secondaire vers l'enseignement supérieur doit etre établie pendant la première année du baccalauréat. Celui-ci doit permettre,de manière équilibrée, d'accorder l'attention nécessaire au contenu des cours, aux domaines d'application, à la formation d'un esprit scientifique critique.

Une maitrise de deux ans est indispensable pour maintenir le niveau scientifique actuel. Une attention particulière sera donnée non seulement aux travaux de fin d'études, aux échanges internationaux mais aussi à une formation orientée soit recherche, soit enseignement(aggrégation-complète- de l'enseignement secondaire supérieur), soit entreprises.

Le canevas, établi dans cette structure 3+2, garantit à l'étudiant un modèle clair de formation.De plus, il permet, aux départements de mathématiques des universités, un challenge réalisable.

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5 Meetings, seminars, conferences

5.1 March 2003

Hopf algebras, quantum groups and differential operators
March 18, 2003, Vrije Universiteit Brussel, VUB

- 10.00-10.45 S. Mahajan (Vrije Universiteit Brussel)
  Quantum groups and differential forms
- 10.45-11.15 coffee break
- 11.15-12.00 Quanshui Wu (Fudan University, Shanghai)
  A-infinity algebras, Frobenius algebras and regular algebras
- 12.00-14.00 lunch at café De Prof
- 14.00-14.45 C. Nastasescu (University of Bucharest)
  Symmetrical Coalgebra
- 14.45-15.15 coffee break
- 15.15-16.00 Pu Zhang (University of Science and Technology of China)
  Quivers and Hopf algebras

The workshop is supported by the bilateral projects BIL 99/43 "New computational, geometric and algebraic methods applied to quantum groups and differential operators" of the Flemish and Chinese Governments and BIL 00/73 "Hopf algebras in Algebra, Topology, Geometry and Physics" of the Flemish and Romanian Governments.

The lectures will take at VUB, building E, Auditorium D2.09.

Coffee breaks will take place in building G, 6G307c. Lunch at café De Prof (kroonlaan 243) is offered to all participants who register by e-mail before March 17 at scaenepe@vub.ac.be. Vegeterian dish is avalaibable at request.

For more information about the workshop, contact Stefaan Caenepeel (scaenepe@vub.ac.be).

Everybody interested is cordially invited!

5.2 May 2003

225th Congress of the Dutch Mathemamtical Society
May 1 and May 2, 2003, Catholic University of Nijmegen (NL).

On May 1 and May 2, 2003, the yearly Congress of the Dutch Mathematical Society is scheduled to take place.

The opening lecture will be delivered by R. Hartshorne, and the concluding lecture by R. Dijkgraaf. Scientific program: F. Beukers, B. Jacobs, J. Koenderink, K. Landsman; there will also be about 13 mini-symposia.

The Congress of the Dutch Mathematical Society 2003 is special in the sense that the organizing Dutch Mathematical Society celebrates its 225th anniversary.

On Thursday May 1 this will be done with a special program:
15.45 – 16.15 Lecture by Nobel prize winner M. Veltman
16.15 – 18.00 Symposium 'Wiskunde, nodig en in nood' (Mathematics, necessary and in emergency jeopardy) about the bad situation of mathematics in The Netherlands, with speakers H. Brandt Corstius, P. Nijkamp and J. Veldhuis.

Furthermore, the board of the Dutch Mathematical Society provides an award of 225 EURO for the most original and most inspiring reply to the question/problem:

"Formulate a mathematical problem with answer 225"

The deadline for submissions is April 1 2003. Problems should be sent to the e-mail address: souvi@math.kun.nl or Prijsvraagcommissie NMC2003, c.o. Dr. B. Souvignier, subfaculteit wiskunde KUN, Postbus 9010, 6500 GL Nijmegen.

More information about the program and the possibility to register can be found on the website:
`http://www.math.kun.nl/nmc2003`

5.3 June 2003

Functional Analysis and Partial Differential Equations
Han-sur-Lesse, June 2–3, 2003, Domaine des Masures

The next meeting is organized at the "Domaine des Masures" in Han-sur-Lesse. It will start on Monday June 2nd around 14:00 and will end on Tuesday June 3rd in the early afternoon.

The following speakers are expected:

- J. Elschner (WIAS Berlin)
  Inverse problems for periodical diffractive structures
- F. Martinez Gimenez (Politechnical University of Valencia)
  Hypercyclic and chaotic polynomials on Fréchet spaces
- C. Michels (University of Oldenburg)
  Summing operators, singular numbers and eigenvalues
- S. Nicolay (University of Liège)
  Discretizing fractional Brownian motion
- P. Paúl (University of Sevilla)
  Quasi-similarity of Hilbert space operators
- E. Schrohe (University of Potsdam)
  Powers of the Laplacian and Hadamard states on conformally compact spaces
- V. Thilliez (University of Lille)
  On the Borel-Ritt theorem for ultradifferentiable classes

If you intend to participate in the meeting, please ask for a registration form to one of the organizers. Due to the limited number of possible participants (around 30 to 35), we might have to cancel some registrations. The choice will be made according to the rule "first claimed, first served". A letter dated early May will let you know about this.

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B-4000 Liège 1 / Belgium.

Eurographics symposium on rendering
25-27 June 2003, Leuven

Information on the website http://www.egsr2003.org/

5.4 July 2003

Equadiff 2003, International Conference on Differential Equations,
Hasselt (Belgium), July 22-26, 2003.

Organizing committee:
F. Dumortier (Chair), H.W. Broer, J.P. Gossez, J. Mawhin, A. Vanderbauwhede, S. Verduyn Lunel

Scientific committee:
A. Ambrosetti, A. Doelman, E. Feireisl, B. Fiedler, M. Fila, J. Hale, Y. Ilyashenko, J. Palis, B. Peletier, C. Simo, F. Takens

Invited speakers and organizers of mini-symposia include:
A. Albouy, V. Araujo, P. Bonckaert, R. Farwig, M. Golubitsky, H. Hanbmann, A.J. Homburg, R. Johnson, H. Th. Jongen, V. Kaloshin, T. Kaper, A. Katok, H. Kokubu, B. Krauskopf, P. Krejci, K. Lust, R. MacKay, J. Mallet-Paret, H. Matano, A. Mielke, R. Moeckel, R. Obaya, R. Ortega, R. Peeters, P. Polcik, D. Rand, G. Raugel, M. Roberts, R. Roussarie, B. Sandstede, K. Schmitt, G. Sell, D. Serre, J. Sotomayor, C. Stuart, P. Szmolyan, S. Terracini, J.F. Toland, F. Verhulst, M. Viana, O.J. Vrieze, M. Wiegner, Y. Yi, K. Zumbrun

Information and registration: `http://www.equadiff.be` or by e-mail `equadiff@luc.ac.be`

5.5 September 2003

International Workshop
Finitely presented algebras, groups and monoids
September 1–5, 2003, Alden Biesen (www.alden-biesen.be), Belgium, 2-nd announcement

ORGANIZERS

Eric Jespers
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Jan Okninski
Institute of Mathematics
University of Warsaw
Banacha 2, 02-097 Warsaw
Poland
okninski@mimuw.edu.pl

INVITED MAIN SPEAKERS

- Professor P. Dehornoy
  Univ. Caen, France
- Professor V. Ufnarovskii
  Univ. Lund, Sweden
- Professor M. Van den Bergh
  Limburgs Univ. Centrum, Diepenbeek, Belgium

PARTICIPANTS
So far the following mathematicians have shown interest to participate in the workshop:

V. Bavula (Sheffield, UK), K. Brown (Glasgow, Scotland), F. Cedo (Barcelona, Spain), T. Gateva-Ivanova (Sofia, Bulgaria), J. Gomez Torrecillas (Granada, Spain), D. Jordan (Sheffield, UK), T. Lenagan (Edinburgh, UK), A. Leroy (Lens, France), S. Pride (Glasgow, Scotland), D. Riley (London, Canada), A. del Rio (Murcia, Spain), N. Ruskuc (St.Andrews, UK),

J. Jaszunska (Warsaw, Poland), J. Krempa (Warsaw, Poland), Z. Marciniak (Warsaw, Poland), J. Matczuk (Warsaw, Poland), J. Okninski (Warsaw, Poland), E. Puczylowski (Warsaw, Poland), A. Salwa (Warsaw, Poland), A. Strojnowski (Warsaw, Poland), A. Szczepanski (Gdansk, Poland),

K. Dekimpe (Kortrijk, Belgium), A. Descheemaeker (Kortrijk, Belgium), P. Igodt (Kortrijk, Belgium), W. Malfait (Kortrijk, Belgium),

S. Caenepeel (Brussels, Belgium), P. Cara (Brussels, Belgium), A. Dooms (Brussels, Belgium), E. Jespers (Brussels, Belgium), P. Wauters (Diepenbeek, Belgium).

AIM

This conference is within the framework of the bilateral agreement between the universities Vrije Universiteit Brussel VUB , Katholieke Universiteit Leuven KULAK and Warsaw University. It is sponsored by the Ministry of the Flemish Government.

The central theme of the meeting is on "finitely presented algebras, groups and monoids". We will focus on special classes of finitely presented monoids related to important classes of groups and algebras, applications of Gröbner bases and computational algebra methods, and concrete non-commutative classes of finitely presented algebras. In particular, we are interested in the impact of the type of the presentation on the structural properties, such as dimensions, finiteness conditions and identities.

The meeting brings together specialists from Poland and Flanders, but also experts from other countries who have approached such problems from different points of view.

TALK

The main speakers will present two one-hour talks. Other participants that are interested in presenting a short talk (30 minutes) are asked to submit a title and an abstract within the next three months.

PRACTICAL INFORMATION

This will be provided at a later stage.

Cellular Automata 2003: Workshop on all aspects of Cellular Automata
10-12 September 2003, Leuven

First Announcement
EMS MATHEMATICAL WEEKEND IN LISBON

SEPTEMBER 12 - 14, 2003, Lisbon, Portugal

This meeting is jointly organized by the European Mathematical Society and by the Portuguese Mathematical Society.

PROGRAM

There will be five Special Sessions and one-hour Plenary Lectures given by the following speakers:

- Michele Audin (Strasbourg)
- Jean-Michel Bismut (Orsay)
- Bernard Dacorogna (Lausanne)
- Hans Foelmer (Berlin)
- Gilles Lebeau (Nice)

The meeting will start on Friday, September 12, at noon, and finish on Sunday, September 14, early afternoon.

SPECIAL SESSIONS

Session on Symplectic and Related Geometries Organized by Michele Audin

Confirmed Speakers: S. Anjos (Lisbon), V. Colin (Nantes), O. Garcia-Prada (Madrid), E. Giroux (Lyon), E. Prato (Nice), F. Presas (Stanford), S. Racaniere (London).

Session on Analysis and Geometry Organized by Jean-Michel Bismut

Confirmed Speakers: A. Alekseev (Geneve), F. Barthe (Marne-la Vallee), S. Bauer (Bielefeld), D. Gaboriau (Lyon), S. Goette (Tubingen), R. Kenyon (Orsay), F. Labourie (Orsay), K. Monhke (Berlin), P. Piazza (Rome I), L. Polterovitch (Tel-Aviv), D. Salamon (Zurich), A. Szenes (Budapest).

Session on Calculus of Variations Organized by Bernard Dacorogna

Confirmed Speakers: G. Friesecke (Warwick), N. Fusco (Napoli), B. Kirchheim (Leipzig), J. Kristensen (Heriot-Watt), P. Marcellini (Firenze), P. Marechal (Montpellier), L. Mascarenhas (Lisbon), J. Matias (Lisbon), G. Mingione (Parma), F. Murat (Paris).

Session on Stochastic Analysis and Mathematical Finance

Organized by Hans Foelmer

Confirmed Speakers: P. Bank (Berlin), N. El Karoui (Paris), M. Fritelli (Florence), M. Jeanblanc (Paris), Y. Kabanov (Besancon), B. Oksendal (Oslo), T. Rheinlaender (Zurich), C. Rogers (Cambridge), W. Schachermayer (Vienna), J. Teichmann (Vienna).

Session on Non-linear Evolution Equations Organized by Gilles Lebeau

Confirmed Speakers: S. Alinhac (Orsay), J.-M. Delort (Paris-Nord), J. P. Dias (Lisbon), E. Grenier (Lyon), S. Klainerman (Princeton), F. Merle (Cergy-Pointoise), B. Perthame (ENS-Paris), D. Piero (Roma), M. Struwe (Zurich), G. Velo (Bologna).

FURTHER INFORMATION

For more or updated information, please see our web page:

http://www.math.ist.utl.pt/ems/

Please send your questions or comments to any of the local organizers.

ORGANIZING COMMITTEE

- Ana Bela Cruzeiro (Session on Stochastic Analysis) email: abcruz@math.ist.utl.pt
- Ana Cannas da Silva (Session on Symplectic and Related Geometries) email: acannas@math.ist.utl.pt
- Pedro Freitas (Session on Non-linear Evolution Equations) email: pfreitas@math.ist.utl.pt
- Rui Loja Fernandes (Session on Analysis and Geometry) email: rfern@math.ist.utl.pt
- Jose Matias (Session on Calculus of Variations) email: jmatias@math.ist.utl.pt

6 Summary of PhD theses

PhD thesis at K.U.Leuven, Computer Science
Powell-Sabin splines for computer aided geometric design
by Joris Windmolders, February 18, 2003

We study Powell-Sabin (PS-)splines in their normalized B-spline representation for Computer Aided Geometric Design (CAGD). These piecewise quadratic polynomials with global C1-continuity have certain advantages compared to the widely used tensor product B-splines and NURBS. We investigate the extension of PS-splines to Non Uniform Rational Powell-Sabin splines (NURPS). These have more flexibility for interactive design and allow to represent quadrics exactly. We also study the particular case of PS-splines on uniform triangulations, give a subdivision scheme for these so-called UPS-splines and use it to derive a new wavelet transform on a triangular grid, as well as an algorithm for the graphical display of UPS-spline surfaces. We use UPS-splines in a generally applicable algorithm that solves the polygonal hole problem, based on interpolation and subdivision techniques. We discuss a software prototype for working with UPS-splines, called PS-surf.

Projective Spaces and Linear Codes

Sandy Ferret[1]
Supervisor: Prof. Dr. L. Storme, Ghent University

Defence: April 3, 2003

An important way of studying linear codes is by using projective geometry. Assume that we have a linear $[n, k, d; q]$-code C, then we can view the columns of a generator matrix as being a multi set K of points of $PG(k-1, q)$, the $(k-1)$-dimensional projective space over the field $GF(q)$.

Hence, studying linear $[n, k, d; q]$-codes is equivalent to studying multi sets K of size n in $PG(k-1, q)$ with the property that a hyperplane intersects these multi sets K in at most $n-d$ points, counted with weights.

In this thesis, we obtain new results concerning linear codes, using techniques from projective geometry.

The two main subjects of the thesis are *minihypers* and *caps*.

Minihypers are equivalent to *linear codes meeting the Griesmer bound*. Besides minihypers with general parameters, we also study a particular class of minihypers, having applications in the study of *maximal partial μ-spreads* in *projective spaces* and *polar spaces*, and in the study of *partial ovoids* of *the generalized hexagon* $H(q)$.

We classify the largest caps in $AG(5, 3)$ as being the *Hill-cap* in $PG(5, 3)$, where an 11-hyperplane is removed; this classification result is now one of only three classification results on the largest caps in $AG(N, q)$, $N > 3$, $q > 2$.

We also present new larger intervals for the non-existence of complete caps in $PG(3, 2^h)$.

Finally, we mention a construction of a new class of two-weight codes meeting the Griesmer bound.

7 Mathematical Olympiad

7.1 General information and... problems

The International Mathematical Olympiad (IMO) is the world's most prestigious mathematics competition for secondary school pupils. The first IMO was held in 1959 in Romania. It was originally intended for Eastern Bloc countries only, but since then the list of participating countries has grown to over 80 from all over the world.

Contestants from all five continents compete in a challenging two day examination. Each day, they are allowed four and a half hours to solve three difficult problems. Full solutions with proofs — not just answers — are required. Each problem is worth 7 points, and partial solutions are given credit.

The site of the competition changes each year. The next venue (IMO 2003) is Tokyo (Japan). For more information, see http://www.imo2003.com/

- 35th IMO (1994, Hong Kong), question 1.
  Let m and n be positive integers. Let $a_1, a_2, \ldots, a_m$ be distinct elements of $\{1, 2, \ldots, n\}$ such that whenever $a_i + a_j \leq n$ for some i, j, $1 \leq i \leq j \leq m$, there exists k, $1 \leq k \leq m$, with $a_i + a_j = a_k$. Prove that

$$\frac{a_1 + a_2 + \cdots + a_m}{m} \geq \frac{n+1}{2}.$$

- 34nd IMO (1993, Istambul), question 3.
  On an infinite chessboard, a game is played as follows. At the start, n^2 pieces are arranged on the chessboard in an n by n block of adjoining squares, one piece in each square. A move in the game is a jump in a horizontal or vertical direction over an adjacent occupied square to an unoccupied square immediately beyond. The piece which has been jumped over is removed.

  Find those values of n for which the game can end with only one piece remaining on the board.

Philippe Niederkorn
co-leader de l'équipe belge à l'OMI 2003

And now, we are waiting for your solutions.... Do not forget to send them to F.Bastin@ulg.ac.be for the next issue of our Newsletter, i. e. before May 10, 2003. Thanks!

[1]This author's research was supported by the Flemish Institute for the Promotion of Scientific and Technological Research in Industry (IWT), grant No. IWT/SB/991011/Ferret.

7.2 Proclamation

La proclamation des OLYMPIADES DE MATHEMATIQUE aura lieu à l'Université de MONS-HAINAUT, le samedi 17 mai 2003.

ADRESSE

Les grands amphithéâtres, 8 avenue du Champ de Mars, à 7000 Mons (également accessibles par l'avenue Maistriau)

Parking: avenue du Champ de Mars et avenue Maistriau (public)

Parking de l'UMH: entrée par l'avenue Maistriau

TEL: 065 373412, 065 373507, FAX: 065 373318, E-MAIL: math@umh.ac.be

WEBSITE: http://www.umh.ac.be/math/institut/ Itinéraires, plan,.... disponibles sur le siteweb.

PROGRAMME
9h45 Séance inaugurale
10h15 Conférence
11h15 Proclamation des Résultats
12h Cocktail de clotûre

La conférence sera donnée par Christian Michaux, sur le thème

Caractéristique d'Euler et classification d'objets géométriques

Quel rapport entre une tasse et une bouée? Pourquoi on ne peut pas déformer une sphére en une bouée? Dans cet exposé, on vous montrera que la clé à ces questions est un comptage dont un cas particulier est bien connu: prenez un polyèdre quelconque (sans trou), compter le nombre de sommets, retrancher le nombre d'arêtes et ajouter le nombre de faces, vous trouverez toujours deux: S - A+ F = 2, cette relation dite d'Euler, semble avoir été mentionnée explicitement pour la première fois dans une lettre entre Euler et Goldbach en 1750. L'histoire ne s'arrête pas là et continue jusqu'à nos jours où la caractéristique d'Euler est même devenue un sujet de recherche à la mode en logique mathématique. L'exposé sera illustré par une projection.

8 Miscellaneous

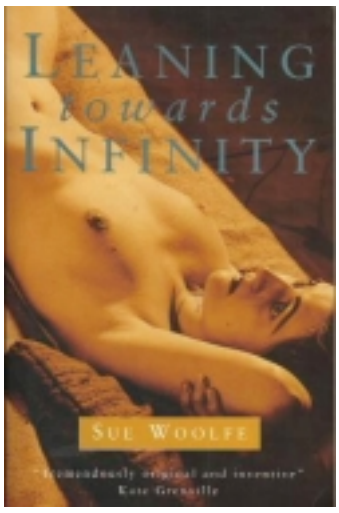
News from the Norwegian Academy about the first award of the Abel Prize

The winner will be announced in Oslo on 3 April. A web site is being prepared[2], and full information about the Prize and the winner will be posted their on that day.

The Prize will be presented by the King of Norway in the University Aula in Oslo on 3 June at 14.00. A programme of events of which this is the centrepiece is being arranged for 2-4 June.

John Kingman
President, European Mathematical Society

9 Fiction



Sue Woolfe *Leaning towards infinity: how my mother's apron unfolds into my life*, Vintage, Random House Australia, 1996, Faber & Faber, 1997; Dutch translation: *Wiskundige moeders*, Vessalucci, Amsterdam, 1997.

[2]The person in charge is Yngvar Reichelt of the Department of Mathematics at the University of Oslo ¡reichelt@math.uio.no

The author is not a mathematician. She admits that in the introduction and after reading the book, I have no doubt that this is certainly true. So what has attracted her to write about mathematics? I quote "it has always been my impression that mathematics are a metaphor for what we are". I must confess that I do not see how she wants to make this clear by this novel.

When I read a summary of the plot on the cover, it was very promising. In 1996 it had been on the bestselling list for months. This is how I was hooked.

Frances Montrose is an amateur obsessed by mathematics. She has seen her mother Juanita neglecting her household, children and her husband hiding in an abstract world of mathematics in which she seeks for some "special number" about which she wants to prove something, but without any professional mathematical knowledge. She also hides literally in the closet in an obsessional fear for meeting foreign people. It is Juanita's hope that Matti, Frances younger brother, will study mathematics to continue her work. Frances however is the one who has inherited the mathematical microbe, but because Juanita does not see this, the relationship between mother and daughter, becomes very ambiguous. Certainly when her mother takes a lover who is a mathematician and divorces her husband in a period that Matti "disappears" and Frances is in full puberty, there is practically no communication possible between the two women. After her mothers death, Frances continues her mothers work and succeeds in finding a proof for the first number and is now ambitious in trying to find the second number. She sends in her nonconventional mathematics, and wins a price: she may travel to Athens (Greece) and present her (mothers) work at a mathematics congress. There she arrives in a male world where nobody is interested in her work, except for a pr-man who has arranged her invitation. The only people who have some human-like behaviour are female.

The story is brought mainly by Frances telling her "adventures" in Greece interlaced with flash-backs of her youth and by letters from her daughter Hypatia, who just got a baby and writes letters to Frances, trying to catch her attention, the relationship between these two also being sickened for unclear reasons. The book ends with a diary of Juanita in the year shortly after Matti was born.

So the main theme of this book is the mother-daughter relations which seem to be always problematic. I read in another review that the book "beautifully illustrates that mathematics are not only an abstract truth that is out-there, waiting for men to be discovered, but that mathematics are produced by real humans". True as that may be, all humans in this novel are frustrated emotionally disabled persons, living in socially isolated deserts. Mathematics seems to be the sole domain of male sharks with no emotional intelligence at all. During the lectures they scream and yell, interrupt the speaker continuously, not even giving him the occasion to make his first statement. The most hilarious atrocity being somebody shouting from the audience "I can see a nipple, I can see a nipple" during the lecture of a young female postdoc.

Moreover, the mathematics about the mysterious numbers that are the obsession of these women are so vague that the hints given will only irritate a mathematician. And if you do not read it for the story, it may be interesting reading it for the beauty of the language. Here I can only judge the Dutch translation that I read, but I did not recognize the "marvellous poetic style" that was promised on the cover. Adverbs are skew or inappropriate, images are highly artificial. The poetry is as much poetry as the mathematics are mathematics. During a break, one of the people at the conference states that the probability to inhale a molecule of the last breath of Cesar is $1-(1-AN)B$ where N is the number of molecules in the air, A is the number of molecules that Cesar exhaled, and B is the number of molecules one inhales. Is this meant to be ironic? Is it a typo? I doubt it.

A. Bultheel

10 The end ...

"Wasn't yesterday your first wedding anniversary? What was it like being married to a mathematician for a whole year?"

"She just filed for divorce..."

"I don't believe it! Did you forget about your anniversary?"

"No. Actually, on my way home from work, I stopped at a flower store and bought a bouquet of red roses for my wife. When I got home, I gave her the roses and said 'I love you'."

"So, what happened?!"

"Well, she took the roses, slapped them around my face, kicked me in the groin, and threw me out of our apartment..."

"I can't believe she did that!!"

"It's my fault...I should have said 'I love you *and only you*'."